5.5 A.>

## WHAT IS CLAIMED IS:

- 1 1.\ A computer readable recording medium recording
- thereon a program, which causes a computer to execute:
- 3 \ a process operation for storing a print command
- 4 converted from print data into a memory;
- 5 a\process operation for reading the stored print
- 6 command to transmit the read print command to a printing
- 7 apparatus; and
- a process operation for rendering a storage area of
- 9 said memory where said print command has been stored,
- rewritable when said print command is read out.
- 1 2. A recording\medium as claimed in claim 1 wherein:
- said recording medium records thereon a program for
- 3 causing said computer to execute a process operation by
- 4 which data for controlling read/write operation of a print
- 5 command to said memory is produced, and said control data
- is stored into another storage area of said memory.
- 1 3. A recording medium as claimed in claim 2 wherein:
- said recording medium records thereon a program
- 3 containing a size of said memory and a data amount
- 4 presently stored in said memory as said control data.
- 1 4. A recording medium as claimed\in claim 2 wherein:

- 2 said recording medium records thereon a program
- 3 containing information indicative of a position within said
- 4 memory where said print command is stored as said control
- 5 data.
- 1 5. A recording medium as claimed in claim 1 wherein:
- said recording medium records thereon a program for
- 3 causing the computer to further execute;
- a process operation for acquiring an index
- 5 indicative of a stored amount of said print command within
- 6 said memory; and
- a process operation for stopping a process operation
- 8 for storing said print command into the memory when said
- 9 index is larger than, or equal to a first preset threshold
- 10 value.
- 1 6. A recording medium as claimed in claim 5 wherein:
- said recording medium records thereon a program for
- 3 causing the computer further to\execute:
- a process operation for stopping a process operation
- 5 for reading said stored print command when said index is
- 6 smaller than, or equal to a second preset threshold value.
- 1 7. A recording medium as claimed in claim 1 wherein:
- said recording medium records thereon a program for
- 3 causing the computer to further execute

- 4 a process operation for acquiring an index
- 5 indicative of a stored amount of said print command within
- 6 said memory; and
- a process operation for stopping a process operation
- 8 for reading said stored print command when said index is
- 9 smaller than, or equal to a second preset threshold value.
- 1 8. A recording medium as claimed in claim 1 wherein:
- said recording medium records thereon a program for
- 3 causing the computer\further to execute:
- a process operation for storing said converted print
- 5 command into a file having such a nature that a print
- 6 command is saved until a\print job is ended, when a print
- 7 job contains an instruction for printing plural sheets of
- 8 the same page.
- 9. A recording medium as claimed in claim 8 wherein:
- said recording medium records thereon a program for
- 3 causing the computer further to \execute:
- a process operation for storing, when said print
- 5 command cannot be saved in said file, the not-yet-saved
- 6 print command into said memory.
- 1 10. A printing control method for controlling writing
- and transmitting of a print command, which comprises:
- a process operation for storing a print command

- 4 converted from print data into a memory;
- 5 \a process operation for reading the stored print
- 6 command to transmit the read print command to a printing
- 7 apparatus;\and
- a process operation executed for rendering a storage
- 9 area of said memory where said print command has been
- 10 stored rewritable when a print command is read out.
- 1 11. A printing control method as claimed in claim 10
- 2 which further comprises:
- a process operation for acquiring an index
- 4 indicative of a stored amount of said print command within
- 5 said memory; and
- a process operation for stopping, when said index is
- 7 larger than, or equal to \a first preset threshold value,
- 8 such a process operation for storing said print command
- 9 into the memory.
- 1 12. A printing control method as claimed in claim 11
- which further comprises:
- a process operation for stopping, when said index is
- 4 smaller than, or equal to a second preset threshold value,
- 5 such a process operation for reading said stored print
- 6 command.
- 1 13. A printing control method as claimed in claim 10

- 2 which further comprises:
- a process operation for storing, when a print job
- 4 contains\an instruction for printing plural sheets of the
- same page, said converted print command into a file having
- 6 such a nature that a print command is saved until a print
- 7 job is ended.
- 1 14. A printing control method as claimed in claim 13
- 2 which further comprises:
- a process operation for storing, when said print
- 4 command cannot be saved in said file, said not-yet-saved
- 5 print command into said memory.
- 1 15. A printing control apparatus for controlling
- writing/transmitting operations of a print command,
- 3 comprising:
- 4 means which stores a\print command converted from
- 5 print data into a memory;
- 6 means which reads the stored print command to
- 7 transmit the read print command to a printing apparatus;
- 8 and
- 9 means which renders, when a\print command is read
- out, the storage area of said memory where said print
- 11 command has been stored rewritable.
- 1 16. A printing control apparatus as claimed in claim 15,

- 2 further comprising:
- 3 \ means which acquires an index indicative of a stored
- 4 amount of said print command within said memory; and
- 5 means which stops, when said index is larger than,
- or equal to a first preset threshold value, such a process
- 7 operation for storing said print command into the memory.
- 1 17. A printing control apparatus as claimed in claim 16,
- 2 further comprising:
- means which stops, when said index is smaller than,
- 4 or equal to a second preset threshold value, such a process
- operation for reading said stored print command.
- 1 18. A printing control apparatus as claimed in claim 15,
- 2 further comprising:
- means which stores, when a print job contains an
- 4 instruction for printing plural sheets of the same page,
- 5 said converted print command into a file having such a
- 6 nature that a print command is saved until a print job is
- 7 ended.
- 1 19. A printing control apparatus as claimed in claim 18,
- 2 further comprising:
- means which stores, when said print command cannot
- 4 be saved in said file, the not-yet\-saved print command into
- 5 said memory.

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A computer readable recording medium for recording
 1
    thereon\a program for causing a computer to execute:
 2
            a converting/storing process operation for
 3
    converting\print data into a print command having a
 4
 5
    predetermined format and for storing the converted print
    command into a first memory;
 6
           a first\stopping process operation for stopping said
 7
 8
    converting/storing process operation in the case that a
 9
    ratio of a print command amount stored into said first
    memory to a storage capacity of said first memory is larger
10
    than, or equal to a first threshold value;
11
           a reading/storing process operation for reading said
12
    stored print command and for storing said read print
13
    command into a second memory;
14
           a transmitting process operation for transmitting
15
    the print command stored into said second memory to a
16
    printing apparatus;
17
18
           a releasing process operation for executing a
    process operation such that a storage area of said first
19
    memory from which said print command is read is rewritable;
20
           a second stopping process\operation for stopping
21
    said reading/storing process operation in the case that a
22
    ratio of a print command amount stored into said first
23
    memory to the storage capacity of said first memory is
24
    smaller than, or equal to a second thiceshold value; and
25
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a third stopping process operation for stopping said

- 27 reading/storing process operation in such a case that a
- 28 ratio of a print command amount stored into said second
- 29 memory to a storage capacity of said second memory is
- larger than, or equal to a third threshold value.
- 1 21. A printing control method comprising:
- a converting/storing step for converting print data
- 3 into a print command having a predetermined format and for
- 4 storing said converted print command into a first memory;
- a first stopping step for stopping said
- 6 converting/storing step in the case that a ratio of a print
- 7 command amount stored\into said first memory to a storage
- 8 capacity of said first memory is larger than, or equal to a
- 9 first threshold value;
- a reading/storing step for reading said stored print
- 11 command and for storing said read print command into a
- 12 second memory;
- a transmitting step for transmitting the print
- 14 command stored into said second\memory to a printing
- 15 apparatus;
- a releasing step for executing a process operation
- 17 such that a storage area of said first memory from which
- 18 said print command is read is rewritable;
- a second stopping step for stopping said
- 20 reading/storing step in the case that a\ratio of a print
- 21 command amount stored into said first memory to the storage

- capacity of said first memory is smaller than, or equal to
  a second threshold value; and
  a third stopping step for stopping said
  reading/storing step in such a case that a ratio of a print
  command amount stored into said second memory to a storage
  capacity of said second memory is larger than, or equal to
- 28 a third threshold value.
- 1 22. A printing control apparatus comprising:
- 2 converting/storing means which converts print data
- 3 into a print command having a predetermined format and for
- 4 storing said converted print command into a first memory;
- first stopping means which stops said
- 6 converting/storing means in the case that a ratio of a
- 7 print command amount stored into said first memory to a
- 8 storage capacity of said first memory is larger than, or
- 9 equal to a first threshold value;
- reading/storing means which reads said stored print
- 11 command and for storing said read print command into a
- 12 second memory;
- transmitting means which transmits the print command
- 14 stored into said second memory to a printing apparatus;
- releasing means which executes a process operation
- such that a storage area of said first memory from which
- said print command is read is rewritable;
- second stopping means which stops said

reading/storing means in the case that a ratio of a print 19 20 command amount stored into said first memory to the storage capacity of said first memory is smaller than, or equal to 21 a second threshold value; and 22 third stopping means which stops said 23 reading/storing means in such a case that a ratio of a 24 print command amount stored into said second memory to a 25 storage capacity of said second memory is larger than, or 26 equal to a third threshold value. 27